



SIMATIC S7, ANALOG INPUT SM336, 6 AI;
 14 BIT;
 40 PIN,
 FAILSAFE ANALOG INPUTS FOR SIMATIC S7F
 SYSTEMS WITH DIAGNOST. INTERRUPT

Supply voltage	
Load voltage L+	
Rated value (DC)	24 V
Reverse polarity protection	Yes
Input current	
from backplane bus 5 V DC, max.	90 mA
from supply voltage L+, max.	160 mA ; Typical
Power losses	
Power loss, typ.	4.25 W
Analog inputs	
Number of analog inputs	6
Number of analog inputs for voltage measurement	4
permissible input voltage for voltage input (destruction limit), max.	30 V
permissible input current for current input (destruction limit), max.	40 mA
Input ranges	
Voltage	Yes
Current	Yes
Input ranges (rated values), voltages	

0 to +10 V	Yes
Input resistance (0 to 10 V)	59 kΩ
Input ranges (rated values), currents	
0 to 20 mA	Yes
Input resistance (0 to 20 mA)	107 Ω
4 to 20 mA	Yes
Input resistance (4 to 20 mA)	107 Ω
Cable length	
Cable length, shielded, max.	200 m
Analog value creation	
Integration and conversion time/resolution per channel	
Resolution with overrange (bit including sign), max.	14 bit
Integration time, ms	20 ms (at 50 Hz); 16.66 ms (at 60 Hz)
Interference voltage suppression for interference frequency f1 in Hz	38 dB
Encoder	
Connection of signal encoders	
for current measurement as 2-wire transducer	Yes
for current measurement as 4-wire transducer	Yes
Errors/accuracies	
Operational limit in overall temperature range	
Voltage, relative to input area, (+/-)	0.48 %
Current, relative to input area, (+/-)	0.48 %
Basic error limit (operational limit at 25 °C)	
Voltage, relative to input area, (+/-)	0.4 %
Current, relative to input area, (+/-)	0.4 %
Interrupts/diagnostics/status information	
Alarms	
Diagnostic alarm	Yes ; Parameterizable
Diagnostic messages	
Diagnostic functions	Yes
Diagnostic information readable	Yes
Diagnostics indication LED	
Fail-safe operation	Yes
Group error SF (red)	Yes
Monitoring 24 V voltage supply ON (green)	Yes ; Encoder supply
Galvanic isolation	
Galvanic isolation analog inputs	

between the channels	No
between the channels and the backplane bus	Yes
between the channels and the power supply of the electronics	Yes ; only if sensors are externally supplied
Isolation	
Isolation checked with	500V DC/350V AC
Standards, approvals, certificates	
Highest safety class achievable in safety mode	
acc. to DIN V 19250	AK 6
acc. to EN 954	Cat. 4
acc. to IEC 61508	SIL 3
Connection method	
required front connector	40-pin
Dimensions	
Width	80 mm
Height	125 mm
Depth	120 mm
Weights	
Weight, approx.	480 g
Status	Sep 8, 2014